JVC

VHS VIDEO MOVIE

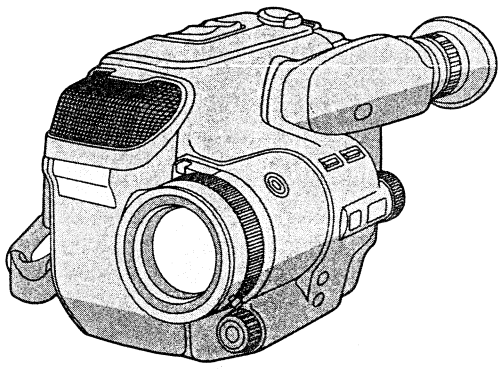
GR-SZ1EG/EK

S-VHS C VHS PAL 625

Hi-Fi STEREO

videomovie

Super VHS



SPECIFICATIONS *(The specifications shown pertain specifically to the model GR-SZ1EG)*

Format		: S-VHS/VHS PAL standard
Power source		: DC 6 V ⎓
Power consumption		: 9.9 W
Signal system		: PAL-type
Video recording system		: Luminance: FM recording Color: Converted sub-carrier direct recording Conforms to S-VHS standard
Hi-Fi audio recording system		: Deep-layer recording system conforming to stereo Hi-Fi VHS standard
No. of audio channels		: 2 Hi-Fi audio channels 1 normal audio channel
Cassette		: S-VHS C / VHS C cassette
Tape speed	(SP)	: 23.39 mm/sec
	(LP)	: 11.70 mm/sec
Recording time Max.	(SP)	: 45 minutes (with SE-C45 cassette)
	(LP)	: 90 minutes (with SE-C45 cassette)

VIDEO

Output	: 1 Vp-p, 75 ohms, unbalanced (via AV OUT connector)

AUDIO

Output	: –6 dBs, 1 k-ohm (via AV OUT connector).
Microphone input	: –68 dBs, high impedance, unbalanced with 1.6 ∅ DC 5 V ⎓ DC out terminal

Hi-Fi AUDIO

Wow and flutter	: Less than 0.005% WRMS

CAMERA

Pick up	: 1/3"-format CCD
Minimum required illumination	: 1 lux (Slow shutter Mode)
Illumination range	: 1 to 100,000 lux
Lens	: **8:1 zoom,** f = 6.4 to 52 mm, **11:1 zoom,** f = 6.8 to 71 mm, **Ultra-Wide,** f = 4 mm, F/1.8, with auto iris and auto macro, filter diameter 46 mm **Microscope Mode** F/15, distance = 92 ± 2 mm
Viewfinder	: Electronic viewfinder with 0.7" color LCD
White balance	: Full-auto

GENERAL

Operating temperature	: 0° C to +40° C
Operating humidity	: 35% to 80%
Storage temperature	: –20° C to +50° C
Weight	: Approx. 920 g (without lens cap, hand strap, and connector covers)
Dimensions	: 127(W) x 122(H) x 214(D) mm (incl. viewfinder)

AA-V11EG SPECIFICATIONS

Power requirement	: AC 110 to 240 V ∿ , 50/60 Hz
Power consumption	: 23 W
Output	: DC 8.5 V ⎓ , 1.3 A (Charge), DC 6.3 V ⎓ , 1.8 A (VideoMovie)
Charging system	: Constant current, peak detection, timer controlled
Dimensions	: 150(W) x 42(H) x 68(D) mm
Weight	: Approx. 350 g

PROVIDEO ACCESSORIES

AC power adapter/battery charger AA-V11EG
Battery pack BN-V22U
A/V output cable
Cable adapter
S-VIDEO cable VC-V44U
S-VHS-C cassette SE-C30
Lithium battery CR2025
Microscope mode lens extender
Lens holder
Remote control unit

Note: Up to 11 x optical zoom magnification (measured from 8:1 wide, f=6.4 mm, to 10:1 telephoto, f=71 mm); up to 22 x digital zoom magnification.

Specifications shown are for SP mode unless otherwise specified.
E. & O. E. Design and specifications subject to change without notice.

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No. 86216
May 1993

Important Safety Precautions

Prior to shipment from the factory, JVC products are strictly inspected to conform with the recognized product safety and electrical codes of the countries in which they are to be sold. However, in order to maintain such compliance, it is equally important to implement the following precautions when a set is being serviced.

● Precautions during Servicing

1. Locations requiring special caution are denoted by labels and inscriptions on the cabinet, chassis and certain parts of the product. When performing service, be sure to read and comply with these and other cautionary notices appearing in the operation and service manuals.

2. Parts identified by the ⚠ symbol and shaded (▒) parts are critical for safety.
   Replace only with specified part numbers.
   Note: Parts in this category also include those specified to comply with X-ray emission standards for products using cathode ray tubes and those specified for compliance with various regulations regarding spurious radiation emission.

3. Fuse replacement caution notice.
   Caution for continued protection against fire hazard.
   Replace only with same type and rated fuse(s) as specified.

4. Use specified internal wiring. Note especially:
   1) Wires covered with PVC tubing
   2) Double insulated wires
   3) High voltage leads

5. Use specified insulating materials for hazardous live parts. Note especially:
   1) Insulation Tape
   2) PVC tubing
   3) Spacers
   4) Insulation sheets for transistors
   5) Barrier

6. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.) wrap ends of wires securely about the terminals before soldering.

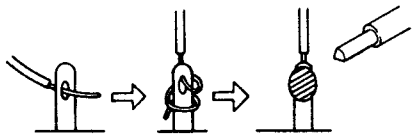


Fig. 1

7. Observe that wires do not contact heat producing parts (heat-sinks, oxide metal film resistors, fusible resistors, etc.)

8. Check that replaced wires do not contact sharp edged or pointed parts.

9. When a power cord has been replaced, check that 10–15 kg of force in any direction will not loosen it.

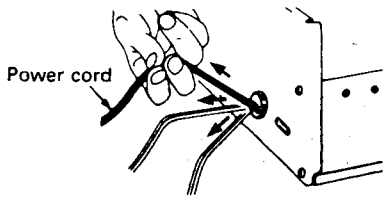


Fig. 2

10. Also check areas surrounding repaired locations.

11. Products using cathode ray tubes (CRTs)
    In regard to such products, the cathode ray tubes themselves, the high voltage circuits, and related circuits are specified for compliance with recognized codes pertaining to X-ray emission. Consequently, when servicing these products, replace the cathode ray tubes and other parts with only the specified parts. Under no circumstances attempt to modify these circuits. Unauthorized modification can increase the high voltage value and cause X-ray emission from the cathode ray tube.

12. Crimp type wire connector
    In such cases as when replacing the power transformer in sets where the connections between the power cord and power transformer primary lead wires are performed using crimp type connectors, if replacing the connectors is unavoidable, in order to prevent safety hazards, perform carefully and precisely according to the following steps.

    1) **Connector part number** : E03830-001
    2) **Required tool** : Connector crimping tool of the proper type which will not damage insulated parts.
    3) **Replacement procedure**
       (1) Remove the old connector by cutting the wires at a point close to the connector.
       Important : Do not reuse a connector (discard it).

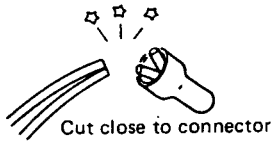


Fig. 3

(2) Strip about 15 mm of the insulation from the ends of the wires. If the wires are stranded, twist the strands to avoid frayed conductors.

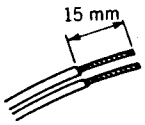


Fig. 4

(3) Align the lengths of the wires to be connected. Insert the wires fully into the connector.

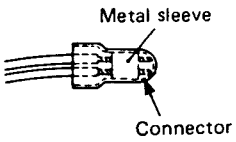


Fig. 5

(4) As shown in Fig. 6, use the crimping tool to crimp the metal sleeve at the center position. Be sure to crimp fully to the complete closure of the tool.

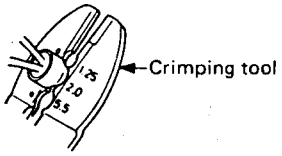


Fig. 6

(5) Check the four points noted in Fig. 7.

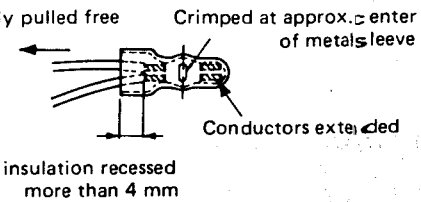

Not easily pulled free
Crimped at approx. center of metal sleeve
Conductors extended
Wire insulation recessed more than 4 mm

Fig. 7

●Safety Check after Servicing

Examine the area surrounding the repaired location for damage or deterioration. Observe that screws, parts and wires have been returned to original positions, Afterwards, perform the following tests and confirm the specified values in order to verify compliance with safety standards.

1. Insulation resistance test

Confirm the specified insulation resistance or greater between power cord plug prongs and externally exposed parts of the set (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.). See table 1 below.

2. Dielectric strength test

Confirm specified dielectric strength or greater between power cord plug prongs and exposed accessible parts of the set (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.). See table 1 below.

3. Clearance distance

When replacing primary circuit components, confirm specified clearance distance (d), (d') between soldered terminals, and between terminals and surrounding metallic parts. See table 1 below.

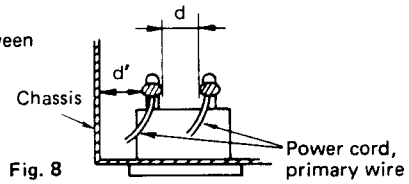


Fig. 8

4. Leakage current test

Confirm specified or lower leakage current between earth ground/power cord plug prongs and externally exposed accessible parts (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.).

Measuring Method: (Power ON)

Insert load Z between earth ground/power cord plug prongs and externally exposed accessible parts. Use an AC voltmeter to measure across both terminals of load Z. See figure 9 and following table 2.

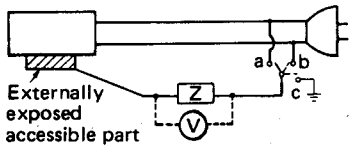


Fig. 9

5. Grounding (Class I model only)

Confirm specified or lower grounding impedance between earth pin in AC inlet and externally exposed accessible parts (Video in, Video out, Audio in, Audio out or Fixing screw etc.).

Measuring Method:

Connect milli ohm meter between earth pin in AC inlet and exposed accessible parts. See figure 10 and grounding specifications.

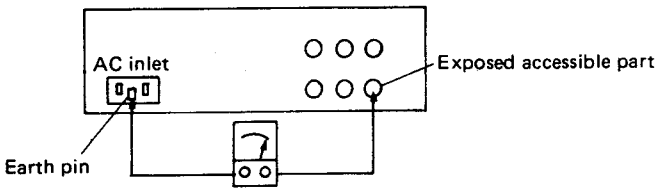


Fig. 10

Grounding Specifications

Region	Grounding Impedance (Z)
USA & Canada	Z ≦ 0.1 ohm
Europe & Australia	Z ≦ 0.5 ohm

AC Line Voltage	Region	Insulation Resistance (R)	Dielectric Strength	Clearance Distance (d), (d')
100 V	Japan	R≧1 MΩ/500 V DC	AC 1 kV 1 minute	d, d' ≧ 3 mm
100 to 240 V			AC 1.5 kV 1 minute	d, d' ≧ 4 mm
110 to 130 V	USA & Canada	–	AC 1 kV 1 minute	d, d' ≧ 3.2 mm
110 to 130 V 200 to 240 V	Europe & Australia	R≧10 MΩ /500 V DC	AC 3 kV 1 minute (Class II) AC 1.5 kV 1 minute (Class I)	d ≧ 4 mm d' ≧ 8 mm (Power cord) d' ≧ 6 mm (Primary wire)

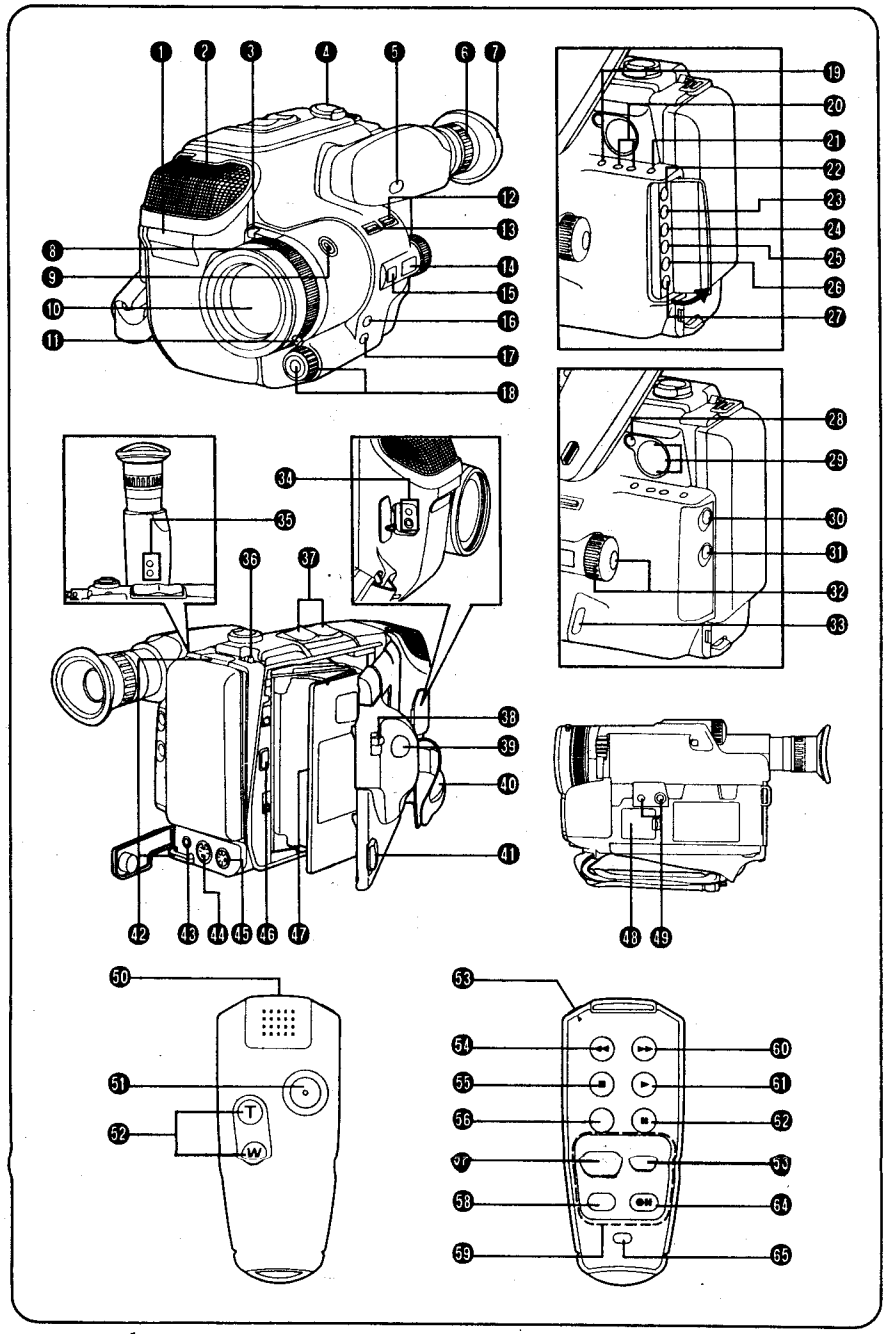
Table 1 Specifications for each region

AC Line Voltage	Region	Load Z	Leakage Current (i)	a, b, c
100 V	Japan	1 kΩ	i ≦ 1 mA rms	Exposed accessible parts
110 to 130 V	USA & Canada	0.15 μF, 1.5 kΩ	i ≦ 0.5 mA rms	Exposed accessible parts
110 to 130 V 220 to 240 V	Europe & Australia	2 kΩ	i ≦ 0.7 mA peak i ≦ 2 mA dc	Antenna earth terminals
		50 kΩ	i ≦ 0.7 mA peak i ≦ 2 mA dc	Other terminals

Table 2 Leakage current specifications for each region

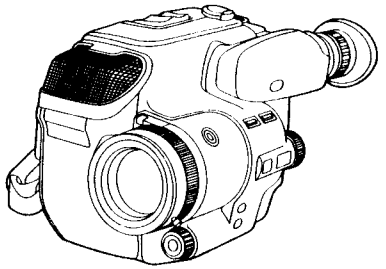
Note: These tables are unofficial and for reference only. Be sure to confirm the precise values for your particular country and locality.

INSTRUCTIONS [EXTRACT]



MAJOR FEATURES

- **Multi function (MF) lens**
- **Microscope mode**
- **Digital image stabilizer**
- **Color viewfinder**
- **Snap shot function**
- **Cinema mode**
- **Scene selector dial**
- **Random Assemble Editing**
- **Auto head cleaner**



This VideoMovie is designed to be used with PAL-type colour television signals. It cannot be used for playback with a television of a different standard. However, live recording and viewfinder playback are possible anywhere. Use the BN-V12U/BN-V22U/BN-V50U/BN-V60U battery packs and, to recharge them, the provided multi-voltage AC power adapter/battery charger. (An appropriate conversion adapter may be necessary to accommodate different designs of AC outlets in different countries.)

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CONTROLS AND CONNECTORS

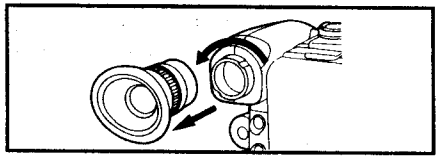
Refer to the diagrams on the front foldout page.

No. Page

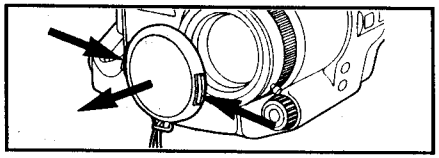
❶ Infrared beam sensor window 28, 31
❷ Microphone
❸ Tally lamp
Lights to show that recording is in progress.
❹ Power switch with LED indicator
"PLAY" position:
To use for VCR functions.
"CAMERA AUTO LOCK" position:
Setting to this position locks the VideoMovie in the Full Auto mode, eliminating the possibility of misoperation by accidentally touching the manual operation buttons while shooting. It is convenient when asking someone else to do the shooting.
"CAMERA AUTO RELEASE" position:
Manual operation and access to the many creative shooting functions of this VideoMovie is possible.
❺ Viewfinder brightness dial 8
❻ Diopter adjustment ring 8
❼ Eyepiece
❽ Manual power focus ring 15
❾ Auto/manual FOCUS button 15
❿ Front lens 16
⓫ Lens release button 17
⓬ D.I. STABILIZER button 20
⓭ DIGITAL ZOOM button 16
⓮ Display window 18
⓯ CINEMA mode button 19
⓰ DISPLAY button 9, 14
⓱ FADER button 19
⓲ IRIS +/– dial and ON/OFF button 20
⓳ Date/time adjust SELECT button 9
⓴ Date/time adjust SET –/+ buttons 9
㉑ Display MODE button 14
㉒ FF button 13, 22
㉓ PLAY button 22
㉔ REW button 13, 22
㉕ STOP button 22
㉖ PAUSE button 13, 23
㉗ R.A.EDIT START button 29
㉘ MENU ON/OFF button 10
㉙ Menu controller (SELECT/SET) 10
㉚ RETAKE F button 13
㉛ RETAKE R /Q.REVIEW button 13
㉜ SCENE SELECTOR dial and ON/OFF button 18
㉝ SNAP SHOT button 20
㉞ External MIC jack
㉟ COLOR/CONTRAST Volume (for JVC service personnel)
㊱ BATTERY RELEASE switch 6
㊲ Power zoom buttons (T/W) 16
㊳ REC LOCK switch
Convenient power ON/OFF while shooting.
㊴ Recording Start/Stop button 12
㊵ Grip strap 8
㊶ Cassette door LOCK/OPEN switch 8
㊷ Eyelets for shoulder strap 31
㊸ REMOTE jack 32
㊹ S-OUT connector
For connection to a television or VCR equipped with an S-VIDEO input terminal.
㊺ AV OUT connector
Both audio and video signals can be obtained from this connector for editing, etc.
㊻ EJECT button 8
㊼ Cassette holder 8
㊽ Clock battery compartment 9
㊾ Tripod mounting socket 31

Remote conrol unit
㊿ Infrared beam transmitting window
(51) START/STOP button
(52) ZOOM (T/W) button
(53) PAUSE IN connector
(54) REW/Retake (Rewind) button
(55) STOP button
(56) VCR CTL button
(57) IN/OUT button
(58) CANCEL button
(59) Random Assemble Editing buttons
(60) FF/Retake (Forward) button
(61) PLAY button
(62) PAUSE button
(63) ON/OFF button
(64) VCR REC STBY button
(65) MBR PRESET button

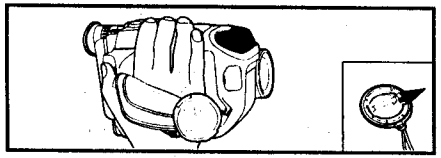
*In cases where buttons located on the remote control and the VideoMovie have the same name, their functions will also be the same.



Cleaning the eyepiece
The viewfinder eyepiece can be removed for cleaning. Turn the eyepiece counterclockwise and pull it out.

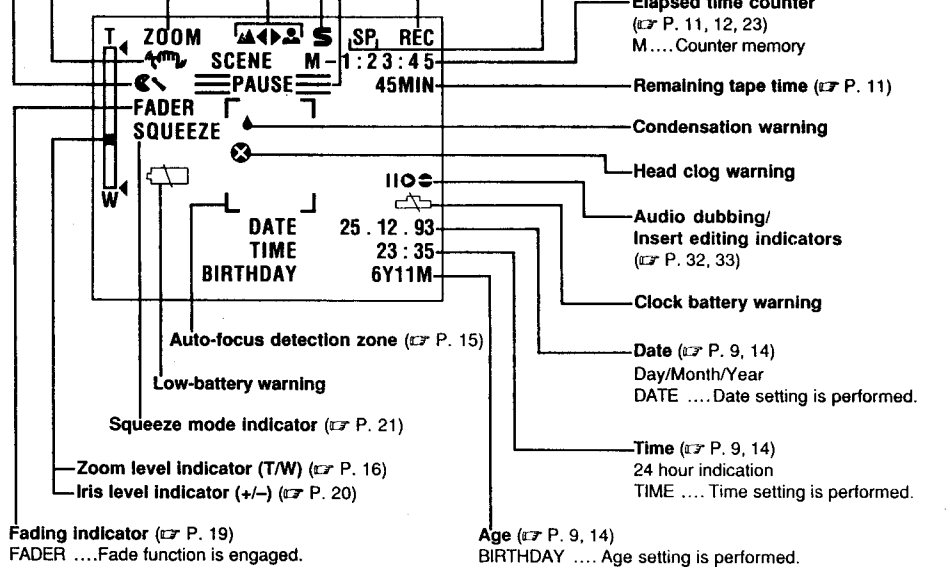


Remove/reattach the lens cap
Remove or reattach the lens cap by pressing the tabs on either side of the lens cap.



Attaching the lens cap to the hand grip, prevents it swinging while shooting.

VIEWFINDER INDICATIONS



Voice position indicator (☞ P. 21)

Digital image stabilizer indicator (☞ P. 20)

Digital zoom indicator (☞ P. 16)

Focus indicator (☞P. 15)
.... Manual Focus mode
.... Low contrast during Auto Focus mode

S-VHS mode indicator
Remains lit while in S-VHS recording mode, and during playback of S-VHS-recorded tape.

Operating mode
REC.....Recording is being performed.
—.....Recording Standby mode
PAUSE....Recording Standby mode
CASSETTE ....Cassette warning

Recording mode indicator (SP or LP)

Elapsed time counter
(☞ P. 11, 12, 23)
M....Counter memory

Remaining tape time (☞ P. 11)

Condensation warning

Head clog warning

Audio dubbing/
Insert editing indicators
(☞ P. 32, 33)

Clock battery warning

Auto-focus detection zone (☞ P. 15)

Low-battery warning

Squeeze mode indicator (☞ P. 21)

Zoom level indicator (T/W) (☞ P. 16)

Iris level indicator (+/–) (☞ P. 20)

Date (☞ P. 9, 14)
Day/Month/Year
DATE ....Date setting is performed.

Time (☞ P. 9, 14)
24 hour indication
TIME .... Time setting is performed.

Fading indicator (☞ P. 19)
FADER ....Fade function is engaged.

Age (☞ P. 9, 14)
BIRTHDAY .... Age setting is performed.

WARNINGS

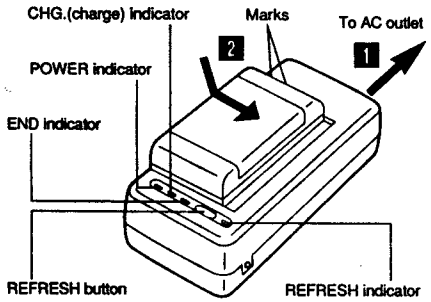
LOW-BATTERY WARNING ( )
When the battery power is coming to an end, a battery warning indication blinks in the viewfinder. After indication appears, the power turns off automatically. Replace the battery pack with a fully charged one.

CLOCK BATTERY WARNING ( )
Blinks when the lithium battery is not in place or exhausted. In this condition, no date/time function is available.

CONDENSATION WARNING ( )
Appears when the excessive moisture condensation occurs inside the unit.

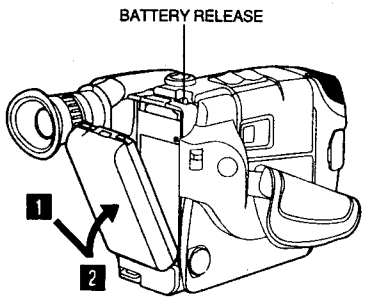
CASSETTE WARNING (CASSETTE)
Blinks to warn that no cassette or a cassette without safety tab is loaded.

PREPARATIONS



	Charging time	Discharging time
BN-V12U	approx. 70min.	approx. 210 min.
BN-V22U	approx. 130min.	approx. 420 min.
BN-V50U	approx. 170min.	approx. 510 min.
BN-V60U	approx. 130min.	approx. 420 min.

- The diagrams above indicate the approximate charging and discharging times of battery packs that are fully charged.
- Charging time and discharging time will vary depending on the ambient temperature and the status of the battery pack.



Recording time

BN-V12U	approx. 30 min.
BN-V22U	approx. 65 min.
BN-V50U	approx. 80 min.
BN-V60U	approx. 65 min.

- The recording time per charge is influenced by the duration of the recording standby, frequency of zooming, etc. It is safer to have spare battery packs.

POWER SUPPLY SYSTEM

The convenient 3-way power supply system gives you a choice of the most appropriate power supply unit, depending on the application.

- No function is available without power supply.
- Do not use any power supply other than specified.
- Never attempt to use these power supply units with any equipment other than the VideoMovie.
- The provided AC Adapter/Battery Charger features automatic voltage selection in the AC range from 110 V to 240 V.

WITH BATTERY PACK

The battery pack has been kept in the uncharged state for shipment. Therefore, before use, be sure to charge it.

Charging the battery pack

1. Connect the AC power cord to a wall outlet.
   — The power indicator lights.
2. Align marks and slide the battery pack in the direction of the arrow until it locks in place.
   — The CHG. indicator lights.
   — When charging has been completed, the END indicator will light.
3. Slide the battery pack in the opposite direction of the arrow.

Attaching the battery pack

1. Hook-on the battery pack's lower end to the bottom of the VideoMovie's battery receptacle.
2. Push the battery pack in until it locks in place.

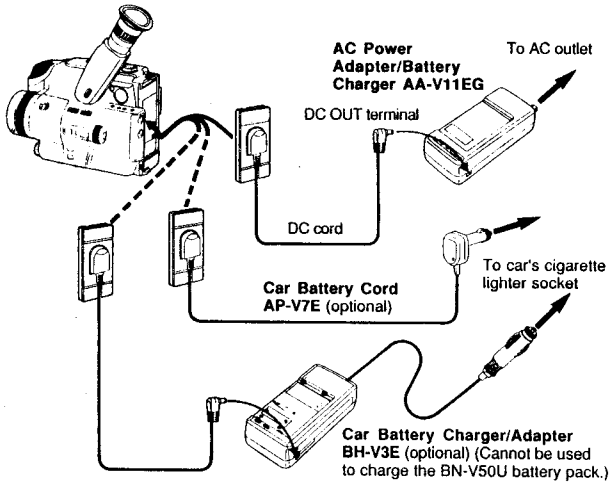
To remove the battery pack:

Pull out the battery pack while sliding BATTERY RELEASE.

Using the REFRESH feature

The REFRESH feature on the AC power adapter allows you to completely discharge the power from the battery pack before charging. After charging the battery pack several times, the actual battery operating time will gradually decrease. For this reason it is recommended to use the REFRESH feature only after every 5 charges.

1. Attach the battery pack to the adapter as illustrated above.
2. Push REFRESH.
   — The REFRESH indicator will light and discharging will begin.
   — After discharging is completed, the indicator will go off.


AC Power Adapter/Battery Charger AA-V11EG
To AC outlet
DC OUT terminal
DC cord
To car's cigarette lighter socket
Car Battery Cord AP-V7E (optional)
Car Battery Charger/Adapter BH-V3E (optional) (Cannot be used to charge the BN-V50U battery pack.)

WITH AC POWER

Use the AC Power Adapter/ Battery Charger.

Note:

This unit can be used with 110 V to 240 V power supplies. Selection is automatic and no adjustment is required.

IN A CAR

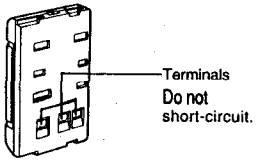
Use the optional BH-V3E Car Battery Charger or AP-V7E Car Battery Cord. Before use, refer to the instruction booklet.

Notes:

- Do not repeatedly recharge a battery pack without fully discharging it. Its service life will decrease. Use the REFRESH feature after every 5 charges.
- Even if a battery pack is fully charged, but is not used, it naturally discharges gradually. Be sure to recharge the battery pack just before using it, or the day before you intend to use it.
- This unit becomes warm due to the flow of electric current inside. Operate it in places having good ventilation. Do not allow it to discharge in a container, such as a bag, etc. Blocking the ventilation causes the temperature inside the unit to rise, possibly resulting in a damaged unit.
- If either recharging or discharging is stopped in the middle of the process, remove the battery pack before unplugging the AC cord.
- This unit incorporates an over-discharging protection circuit; however, immediately remove the battery pack from this unit after discharging has been completed to maintain the battery pack's capacity.
- If used near a radio, the AC power adapter may interfere with reception.
- Be sure to unplug the DC cord before charging or discharging the battery pack.
- Before storing the battery pack for a long period it is recommended to discharge it. To discharge the battery pack, unplug the AC adapter and attach the battery pack before activating the REFRESH function. When activated, the REFRESH indicator will light. When discharge is completed, the indicator will go off.
- The REFRESH feature will not function if the power status of a battery pack is discharged (No power remains).
- When the CHG.indicator is blinking, the battery pack has become hot. Wait for a while for the battery pack to cool. With a just-purchased battery pack, or with a battery pack that has been stored for a long period, the CHG.indicator may not light properly. In such a case, remove and reattach the battery pack again, then do the recharging procedure. The CHG.indicator should light during recharging to indicate, the battery pack is normal. If this is not the result, consult your nearest JVC dealer.

A WORD ON THE EXCLUSIVE BATTERY PACKS

The battery packs are nickel-cadmium batteries and nickel-metal hydride batteries. Be sure to carefully read the caution attached to the battery pack.



Temperature ranges:

The recharging time is based on room temperature of 20°C.
The lower the temperature, the longer the recharging time.

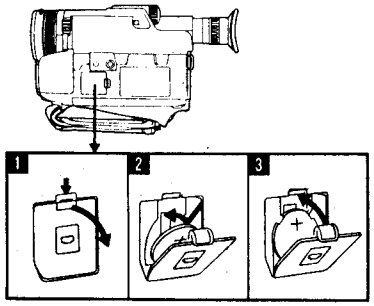
For charging: 10°C to 35°C
For operating: 0°C to 40°C
For storing: –10°C to 30°C

ENGLISH

CLOCK (LITHIUM) BATTERY INSERTION

Necessary for clock and date/time/age settings.

* Switch off the unit's power and remove the power suppply unit before inserting or removing the clock battery.



1. Remove the clock battery compartment cover while pressing the release tab.
2. Insert the provided lithium battery with the plus (+) side up by sliding it in the direction of the arrow, and pushing it down.
   * When removing the battery, slide it in the direction of the arrow and lift it up.
3. Close the compartment cover until it clicks in place.

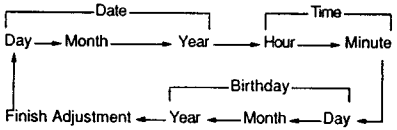
Warning on lithium battery
- Dispose of used battery promptly.
- Keep away from children.
- Do not disassemble and do not dispose of it in fire.

(See Warning on lithium battery, ☞ P. 2)

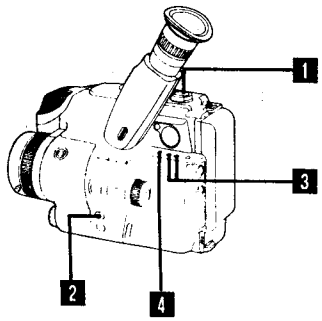
SETTING DATE/TIME/BIRTHDAY

Before adjusting the date, time and birthday for the first time or after replacing the battery.

1. Set the power switch to "RELEASE".
2. Press DISPLAY. — The day blinks.
3. Press DATE/TIME ADJ. SET (+/–) to choose the correct day.
4. Press DATE/TIME ADJ. SELECT to enter that setting and move to the next item to change, in the sequence below:



- If DATE/TIME ADJ. SELECT is kept pressed for more than 1.5 seconds, this will call up items rapidly for setting, and stops at the item where the button is released.



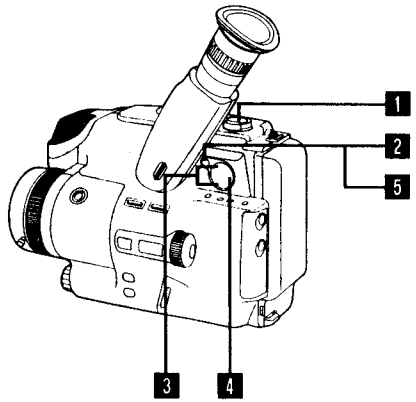
5. Procedures in steps 3 and 4 allow you to set Date and Time.
   After the Time has been set, proceed to the Birthday setting.

   Setting the "Birthday"
   The VideoMovie is provided with a "Birthday" memory function so that once someone's date of birth is entered into memory, the unit can display and record his or her age, automatically calculated to the current dates of the scenes.
   - Age-indication appears as follows:
     Under one-month-old ..... 1D to 31D
     Under one-year-old..... 1M to 11M
     Under 7-year-old..... 1Y0M to 6Y11M
     7 and over 7-year-old..... 7Y to 99Y
6. Make the settings for the items of BIRTHDAY as described in steps 3 and 4.
7. After all items have been set, press DATE/TIME ADJ. SELECT.
   — Blinking stops, and the Date, Time and Age will be displayed.

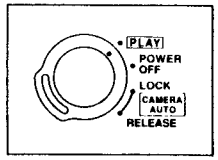
   Notes:
   - When the Date/Time/Birthday is set for the first time, after inputting the "BIRTHDAY" data, the Date, Time and Age (automatically calculated based on the BIRTHDAY data) appear.
   - The clock begins timekeeping when the minute portion stops blinking and remains constantly lit. While the Date and Time are blinking, the clock does not keep time. Be sure to confirm the correct time when setting the Birthday.
   - When re-adjusting the data, press DISPLAY to display each item and press DATE/TIME ADJ. SET and DATE/TIME ADJ. SELECT to correct them. After adjustment is completed, the date, time and age appear for about 3 seconds, then the display returns to the mode before correcting.

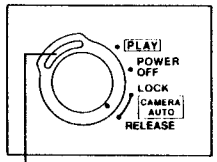
ENGLISH

MENU SYSTEM



Many recording and playback settings are done using the convenient in-viewfinder menu display.





Press down on lock release button while turning to "RELEASE".

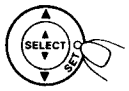
To access the Menu

1. Set the power switch to "RELEASE" for items related to shooting, and to "PLAY" for items related to playback.
2. Press MENU ON/OFF.
   - The menu will appear in the viewfinder.
3. Press SELECT ∧ / ∨ to move the pointer to the item you want.
4. Press SET to change the status.
   - If there is more than one change to make, repeat steps 3 and 4 as necessary.
5. Press MENU ON/OFF to end.

Example:

►FORMAT	►AUTO	VHS
SVHS/VHS		
SP/LP	►SP	LP
TAPE	►45MIN	30MIN

FORMAT	►AUTO	VHS
SVHS/VHS		
SP/LP	►SP	LP
►TAPE	►45MIN	30MIN

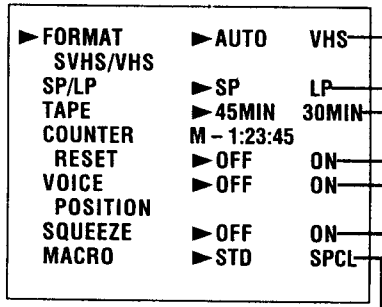


FORMAT	►AUTO	VHS
SVHS/VHS		
SP/LP	►SP	LP
►TAPE	45MIN►	30MIN

ENGLISH

Some items can be set at any time, whenever necessary, however the ones numbered 1 2 3 below must be set prior to starting recording.

MENU: SHOOTING



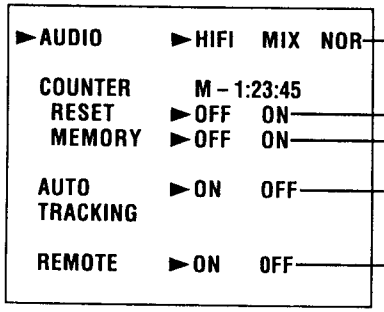
1 SET THE FORMAT
Choose the recording format.
- AUTO: Automatically records in Super VHS with an S-VHS-C cassette, and in VHS with a VHS-C cassette.
- VHS: For VHS recording whether the cassette is VHS-C or S-VHS-C.

2 SET THE TAPE SPEED
Choose the tape speed that better meets your requirements.
- SP: Faster tape speed. Better for dubbing later because higher picture and sound quality are maintained.
- LP: Slower tape speed. To record 2 times longer than with SP. For more economical use of tape.

3 SET THE TAPE LENGTH
The tape remaining time is displayed in the viewfinder. Before shooting, choose the setting that corresponds to the length (time) of the tape you are using.
- 45MIN: When using a SE-C45/EC-45 cassette (45 minutes recording time in SP speed).
- 30MIN: When using a SE-C30/EC-30 cassette (30 minutes or less recording time in SP speed).

COUNTER RESET: Resets the counter to zero.
VOICE POSITION: A "wind filter" for the microphone (☞ P.21).
SQUEEZE: For "squeezed" recordings to view on wide-screen TVs (☞ P.21).
MACRO: To modify the macro range (☞ P.21).

MENU: PLAYBACK

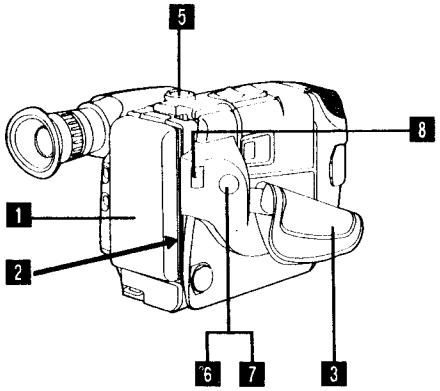


AUDIO: To choose the audio soundtrack during playback and dubbing/editing.
- HiFi: To listen to the sound recorded on the Hi-Fi audio track.
- MIX: To listen to the sound recorded on both Hi-Fi and longitudinal audio tracks (mixed audio).
- NOR: To listen to the sound recorded on the longitudinal (normal) audio track.

COUNTER RESET: Resets the counter to zero.
COUNTER MEMORY: Enables quick return to the tape's "zero" position; for search and editing (☞ P.23).
AUTO TRACKING: Automatic tracking or manual tracking (☞P.22). "USE ZOOM SW" appears when set to OFF.
— Tracking can be adjusted using the zoom buttons.
REMOTE: To enable or disable remote control operation.

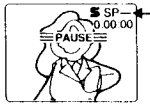
Notes:
- Counter Reset item returns to OFF when the SET button is released.
- For all items other than Counter Reset, any changes made in their status will remain until manually changed back to the original status. Settings do not automatically change back to their original status when the VideoMovie is turned off and on again.

RECORDING OPERATION



1. Preparations
1 Supply power.(☞ P.6.)
2 Insert a video cassette correctly. (☞ P.8.)
3 Adjust the grip strap. (☞ P.8.)

2. To enter the Record-Standby mode
4 Set SP/LP as required.(☞ P.11.)
5 Set the power switch to "LOCK" or "RELEASE".
— The power indicator lights.
— The VideoMovie enters the Record-Standby mode. The aimed-at scene will appear on the viewfinder screen.



"S SP—" or "S LP—" Record-Standby mode indication

3. To shoot the scene
6 Determine the composition by referring to the viewfinder image and press the Recording Start/Stop button.

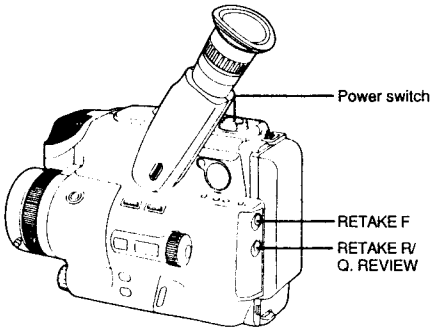
"SP REC" or "LP REC" Recording mode indication
Elapsed time counter

7 To stop recording temporarily, press the Recording Start/Stop button again.
- To restart recording, press the Recording Start/Stop button.
- Repeating steps 6 and 7 produces assemble recordings.

8 To turn the power off and on during shooting, use the conveniently located REC LOCK switch.

Notes:
- When a tape reaches its end during recording, the power switch itself off automatically if left for longer than 5 minutes.
- For a longer pause, set the power switch to off to save power.
- If the Record-Standby mode continues for longer than about 5 minutes, the unit switches itself off automatically. To restart recording, turn the power on and press the Recording Start/Stop button. This makes clean assembled recordings possible even after a long pause.
- When digital modes are engaged, there will be a decrease in resolution and the picture will appear coarser than normal.

AUTO-REHEARSAL
Rehearsal mode is automatically engaged in the following situations:
The power switch is set to the "LOCK" position and;
= no cassette is loaded, or
= a cassette without its safety tab is loaded.
- Rehearsal mode is not engaged when the power switch is set to the "PLAY" position.



QUICK REVIEW

If you want to review the end of the last recording for confirmation use this function.

- Keep pressing Q. REVIEW from the Record-Standby mode.
  — The tape will be rewound for about 2 seconds of program time and played back automatically for this section, after which it will pause in the Record-Standby mode for the next shot.

Note:

Distortion might occur when playback starts. This is normal.

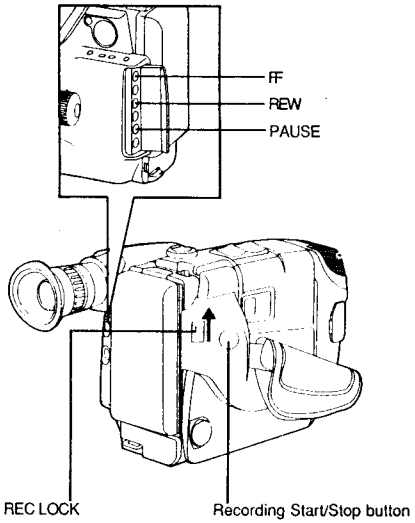
RETAKE

While recording, you may decide to re-record certain segments. The Retake function is convenient for this.

1. Make sure the power switch is set to "RELEASE" and the VideoMovie is in the Record-Standby mode. (If not, engage the mode.)
2. Press RETAKE R or F to reach the point where you wish a new recording to start.
   - When RETAKE is released, the camera will enter the Record-Standby mode again.
3. Press the Recording Start/Stop button.
   — Recording starts.

Note:

Noise may appear during Retake. This is normal.



ASSEMBLE RECORDING TECHNIQUES

[1] **To replace the battery pack during recording:**

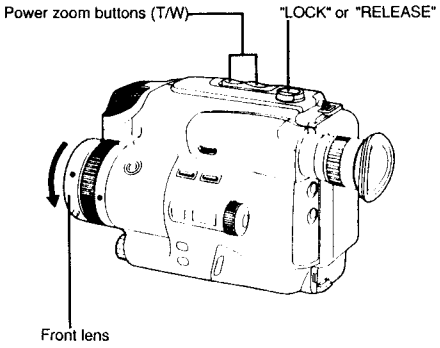
1. If the battery warning appears in the viewfinder while recording, stop recording by pressing the Recording Start/Stop button and turn off the power by sliding REC LOCK.
2. Replace the battery pack with a charged one.
3. Slide REC LOCK to turn the unit's power on again.
   — The unit will be in the Record-Standby mode.
4. Press the Recording Start/Stop button.
   — Recording starts.

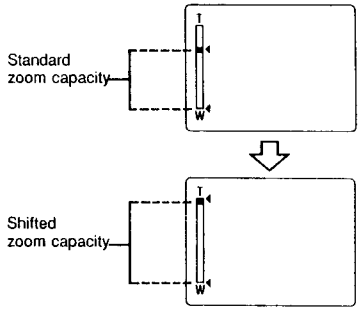
[2] **To record onto a partially recorded tape:**

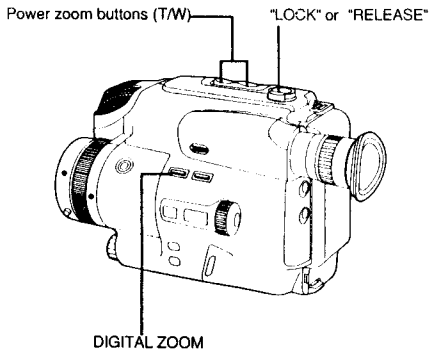
1. Set the power switch to "PLAY" and play back the tape to a point where you wish a new recording to start.
   - Use REW or FF for faster location.
2. Press PAUSE at the located point.
   — The unit will enter the Still mode.
3. Set the power switch to "LOCK" or "RELEASE".
4. Press the Recording Start/Stop button.
   — Recording starts.

ENGLISH

ADVANCED VIDEOGRAPHY TECHNIQUES (Cont'd)







ZOOMING

Pressing the power zoom buttons ("T" and "W") will vary the focal length of the lens. Maximum magnification is approximately 8x.

Procedure:

- Press T : Zooms in on the image, brings it "nearer".
- Press W : Zooms out, "backs away" from the image.

DIGITAL ZOOM

Digital zoom offers double the magnification of normal zoom. (Maximum approx. 16x)

To engage Digital Zoom:

1. Press DIGITAL ZOOM.
   - The zoom level in the viewfinder's bar indicator will change to show the added zoom capacity.
2. Press T/W to zoom in/out .

To disengage Digital Zoom:

Press DIGITAL ZOOM again.

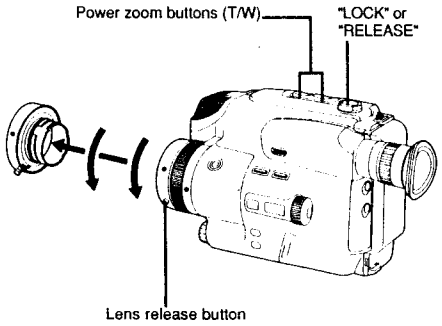
The VideoMovie's front lens can be "shifted" to provide extra zoom capability whenever needed. Maximum magnification is approximately 22x.

Procedure:

1. Turn the front lens in the direction of the arrow until it pops out slightly.
   - The zoom bar indicator in the viewfinder will change to show the added zoom capability.
2. Press T/W to zoom in/out.
   - When the lens is shifted, the VideoMovie may momentarily go out of focus.

Notes:

- Focusing may become unstable during the zooming-in operation. In this case, first zoom-in in the Recording Standby mode then, after using the manual focusing (☞ P. 15) to hold the focus fixed, zoom in or out in the Record mode.
- When shooting low-contrast subjects in the Zoom-in mode, the VideoMovie automatically zooms out with the low contrast indicator blinking and focus being performed.
- When using shifted zoom at maximum zoom-in position under conditions of very low light, the outside edge of the picture may appear slightly out of focus. This is a normal condition caused by inherent lens aberrations.



ULTRA-WIDE ANGLE

To get more people into group shots, fit more picturesque scenery into vacation footage, etc.

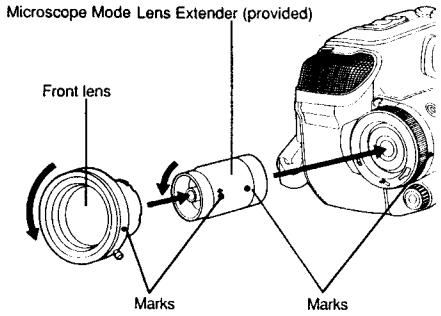
1. Turn the front lens in the direction of the arrow until it pops out slightly.
2. Press the lens release button while turning the lens in the direction of the arrow. The lens will release.
   - Now you have an ultra-wide angle of view.
   - The Digital Zoom function is engaged automatically; use the zoom buttons to precisely frame the scene you are recording.

To re-attach the front lens:

Align the positioning marks (red dots), push the lens in fully, and turn the lens in the opposite direction until it catches.

Notes:

- Clean the lens with a blower brush or lens cleaning paper before re-attaching it to the VideoMovie.
- In Ultra-Wide, the "warping" that may appear in the picture (especially at the outer edges) is a natural phenomenon and is not a malfunction of the unit.



MICROSCOPE MODE

Using the provided Microscope Mode Lens Extender, you can magnify tiny objects to screen-filling size. Something measuring only 1 cm will fill the screen; the image displayed on a 71 cm TV screen will be about 121 times its original size.

1. Detach the front lens using the same procedure as Ultra-Wide.
2. Align the positioning marks, insert the lens extender until it fits snugly, and turn in the direction of the arrow until it catches.
3. Align the positioning marks and attach the front lens to the lens extender as illustrated.
4. Focus using the manual focus ring or by changing the distance between the lens and the object being shot.
   - Object must be located approximately 92 mm from the front lens.
   - The Digital Zoom function is engaged automatically; use the zoom buttons to increase magnification up to twice as much. (Max. 242x magnification on a 71 cm TV.)

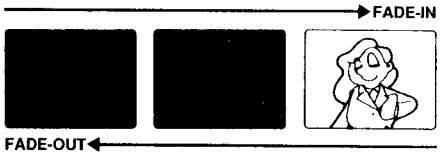
TV/Monitor Screen Size	Maximum Magnification with Microscope Mode	
	Optical	Digital (2x)
53 cm	97x	195x
71 cm	121x	242x
94 cm	172x	344x

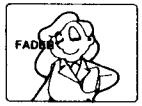
When finished using Microscope Mode:

Detach the front lens and Microscope Mode Lens Extender, and re-attach the front lens to the VideoMovie. Autofocus automatically re-engages.

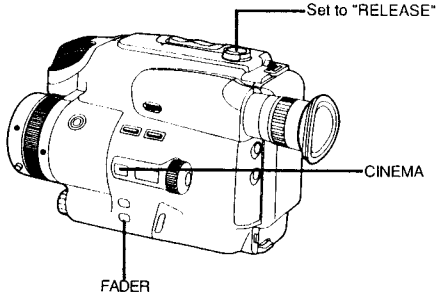
Notes:

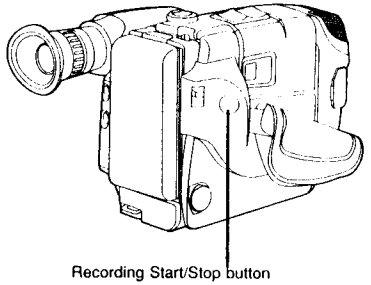
- The use of a tripod is recommended.
- When using indoors, additional lighting is recommended.
- The four corners of the picture may appear dark.

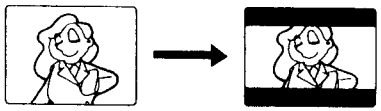




Viewfinder







Cinema mode

FADER

This VideoMovie incorporates a fader function which allows smooth video and audio fade-in and fade-out to a black blank screen.

(Make sure the power switch is set to RELEASE.)

Fade-in

1. Press FADER.
   — The VideoMovie enters into the Fade-Standby mode and "FADER" appears.
2. Press the Recording Start/Stop button.
   — The screen immediately becomes blank and recording begins. Fade-in starts at the moment the Recording Start/Stop button is released.
   - If the button is not released, the screen will remain blank and be recorded as long as the button is kept pressed.

Fade-out

1. Press FADER in the Recording mode.
   — The VideoMovie enters the Fade-Standby mode and "FADER" appears.
2. Press the Recording Start/Stop button.
   — The viewfinder indications start blinking. Fade-out starts and will be completed in a few seconds.
   - When completed, the VideoMovie enters the Record-Standby mode automatically. At this time, if the button is not released, the screen will remain blank and be recorded as long as the button is kept pressed.

Note:

Viewfinder indication "FADER" is not recorded.

CINEMA MODE

This VideoMovie incorporates a "Cinema" mode recording function which allows you to record black bars at the top and bottom of the screen to produce a cinema-like "wide-screen" effect.

(Make sure the power switch is set to RELEASE.)

To engage the Cinema mode:

Press CINEMA.

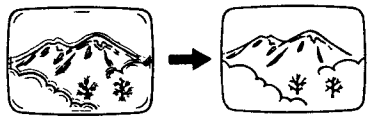
To restore the normal screen:

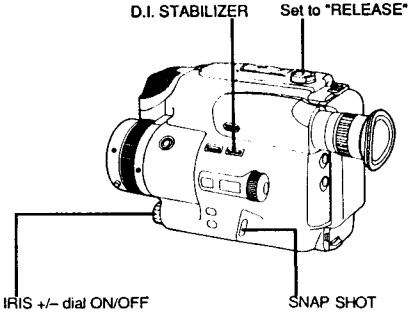
Press CINEMA again.

Notes:

- Cinema mode can be engaged only in the Record-Pause, Record or Rehearsal mode.
- Cinema mode can be used in combination with Scene Selector effects for added variety.

ADVANCED VIDEOGRAPHY TECHNIQUES (Cont'd)





MANUAL IRIS CONTROL

This VideoMovie offers automatic adjustment of iris to provide the best available picture quality, but this can be overidden in cases when manual control of iris is desireable.

(Make sure the power switch is set to RELEASE.)

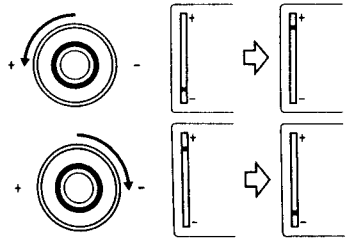
For manual iris control:

1 Press the AUTO/MANUAL button.
- A brightness indicator bar will appear in the viewfinder.

2 Turn the IRIS +/- dial to adjust picture brightness.

To re-activate automatic iris control:

Press the AUTO/MANUAL button again.



DIGITAL IMAGE STABILIZER

To compensate for the unstable images caused by hand shake (especially noticeable at high zoom ranges), this VideoMovie incorporates a Digital Image Stabilizer .

To engage the Digital Image Stabilizer:

Press D.I. STABILIZER.
- will appear in the viewfinder.

To disengage the Digital Image Stabilizer:

Press D.I. STABILIZER again.

Notes:

- Accurate stabilization may not be possible if hand shake is excessive, or when shooting the following: • Subjects with vertical or horizontal stripes • Low contrast subjects • Dark/dim subjects • Subjects with excessive backlighting • Scenes with movement in various directions • Low contrast backgrounds
- Digital Image Stabilizer (DIS) cannot be used while Strobe, Classic Film or Slow Shutter are activated. When any of these turned on while DIS is already on, the indicator blinks, telling you that DIS is unable to function.

SNAP SHOT MODE

This interesting feature lets you record a white-bordered digital still that looks (and sounds) just like a photograph is being taken. Use it to liven up recordings of parties, weddings, graduations, and so on.

(Make sure the power switch is set to RELEASE.)

To engage the Snap shot mode:

Press SNAP SHOT.
- When engaged during recording, there will be a momentary camera shutter-type blackout, a shutter sound effect is recorded on the tape, and a white-bordered still image is displayed and recorded.
- When engaged during pause, a still image will be displayed, and when the Recording Start/Stop button is pressed, only the "snap shot" will be recorded.
- The displayed "snap shot" remains until the SNAP SHOT button is pressed again.

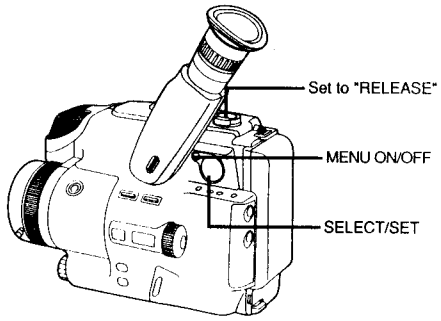
To disengage the Snap shot mode:

Press SNAP SHOT again.
Turning the power switch to LOCK also disengages this mode.
- Snap shot mode can be used in combination with Scene Selector effects for added variety.
- Date/time/age display will disappear during Snap shot mode.

FORMAT	►AUTO	VHS
SVHS/VHS		
SP/LP	►SP	LP
TAPE	►45MIN	30MIN
COUNTER	M – 1:23:45	
RESET	►OFF	ON
►VOICE	OFF	►ON
POSITION		
SQUEEZE	►OFF	ON
MACRO	►STD	SPCL

FORMAT	►AUTO	VHS
SVHS/VHS		
SP/LP	►SP	LP
TAPE	►45MIN	30MIN
COUNTER	M – 1:23:45	
RESET	►OFF	ON
VOICE	►OFF	ON
POSITION		
►SQUEEZE	OFF	►ON
MACRO	►STD	SPCL

FORMAT	►AUTO	VHS
SVHS/VHS		
SP/LP	►SP	LP
TAPE	►45MIN	30MIN
COUNTER	M – 1:23:45	
RESET	►OFF	ON
VOICE	►OFF	ON
POSITION		
SQUEEZE	►OFF	ON
►MACRO	STD	►SPCL



VOICE POSITION

When set to ON, this function cuts low-level audio frequencies like the noise sometimes caused by gusts of wind as they hit the microphone.

(Make sure the power switch is set to RELEASE.)

To engage Voice Position:

Set to ON in the viewfinder menu (☞ P.11).
- will appear in the viewfinder.

To disengage Voice Position:

Set to OFF in the viewfinder menu.

16:9 SQUEEZE MODE

When set to ON, this function "squeezes" the picture laterally so they can be viewed (automatically unsqueezed) on wide-screen TVs to become available in the future.

(Make sure the power switch is set to RELEASE.)

To engage Squeeze Mode:

Set to ON in the viewfinder menu (☞P.11).
- "SQUEEZE" will appear in the viewfinder.
- The picture in the viewfinder (and the recorded image) will be squeezed.

To disengage Squeeze Mode:

Set to OFF in the viewfinder menu.

MACRO ADJUST

When set to SPCL, this function allows the lens to focus only on objects more than 5cm away from the lens.

(Make sure the power switch is set to RELEASE.)

To adjust Macro mode:

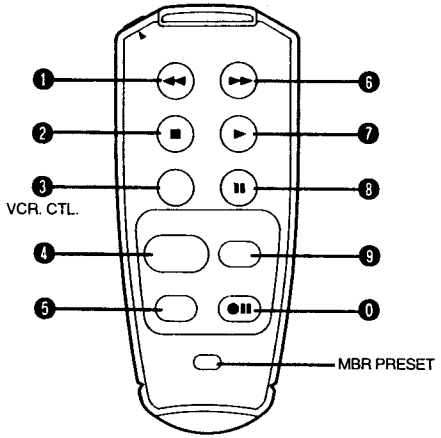
Set to SPCL in the viewfinder menu (☞ P.11).
- Autofocus will not acknowledge objects closer than 5cm.

To return Macro to standard:

Set to STD in the viewfinder menu.

ENGLISH

EDITING TECHNIQUES



VCR CODE LIST

VCR BRAND NAME	BUTTONS (A) (B)
JVC A	0 1
B	0 2
C	0 3
PHILIPS	1 0
	0 2
	1 1
	0 7
	0 1
	0 2
	1 5
	3 3
FERGUSON	0 4
	0 5
	3 6
BLAUPUNKT	1 3
PANASONIC	1 3
	1 4
	1 1
	3 7
	1 5
SELECO, REX	0 1
	0 2

VCR BRAND NAME	BUTTONS (A) (B)
SHARP	1 8
	1 9
TOSHIBA	2 0
	3 1
HITACHI	2 4
	2 5
MITSUBISHI	2 4
	2 5
AKAI	2 6
	2 7
SONY	2 8
	2 9
	3 0
	3 1
SANYO	3 2
	3 6
	3 3
	4 0
NEC	3 4
	3 5
THOMSON,	0 1
TELEFUNKEN	0 2
SABA	0 4
NORDMENDE	3 6

- Although the provided remote control unit is compatible with JVC VCRs, as well as many VCR models manufactured by others, it is possible that the provided remote control will not work with your VCR or may offer limited functions.

MBR (Multi-Brand Remote Control)

The provided MBR unit can operate this VideoMovie from a distance as well as the basic operations (PLAY, STOP, PAUSE, FF, and REW) of your VCR. This remote control unit is useful when dubbing from the VideoMovie to your VCR.

- Install a battery before using the remote control unit. ☞ P.31.

A. To operate the VideoMovie

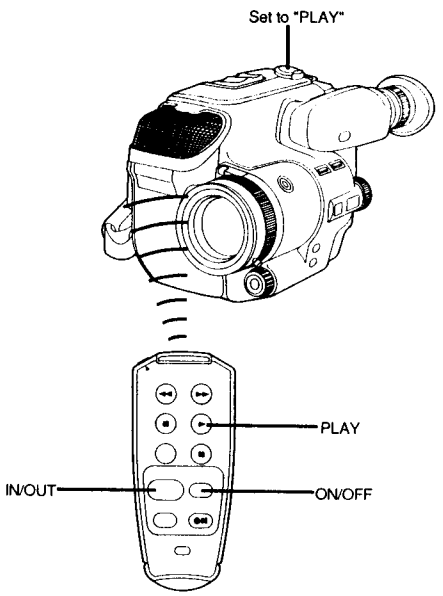
1. Turn the VideoMovie's power ON.
2. Press the button corresponding to the function you want to operate.

B. To operate your VCR

1. **To set the remote control unit to correspond to the brand of your VCR:**
   1. Look for the two-digit code of the brand of your VCR in the list.
   2. While pressing MBR PRESET, press the button that corresponds to digit (A), and then press the button that corresponds to digit (B).
   3. Release PRESET.
2. **To operate the VCR:**
   1. Turn the VCR's power ON.
   2. Press the button on the remote control unit corresponding to the function you want to operate while pressing VCR CTL.
   - Since the remote control unit has a number of operation codes, determine the appropriate code for operating your VCR by confirming correct VCR operations according to the steps above.

ENGLISH

EDITING TECHNIQUES (Cont'd)




```
      IN          OUT
►1  0:00:25
 2
 3
 4
 5
 6
 7
 8
COUNTER   0:00:25
TOTAL     0:00:00
```

```
      IN          OUT
 1  0:00:25     0:00:38
►2  0:00:43
 3
 4
 5
 6
 7
 8
COUNTER   0:00:43
TOTAL     0:00:13
```

RANDOM ASSEMBLE EDITING

The provided remote control offers a feature called Random Assemble Editing (RAE) which lets you pre-select up to 8 scenes to be automatically edited to a VCR. (The VCR must be controllable using the provided remote control, ☞ P.27).

Preparations:

- Connect the VideoMovie and the recording deck as per the diagram on the right (P.29). (Do not connect [A] or [B] yet.)
- VideoMovie: Correctly insert a recorded tape and set the power switch to "PLAY".
- VCR: Turn power on. Insert a recordable tape, and set to the AUX(iliary) mode. Refer to VCR's manual for details.

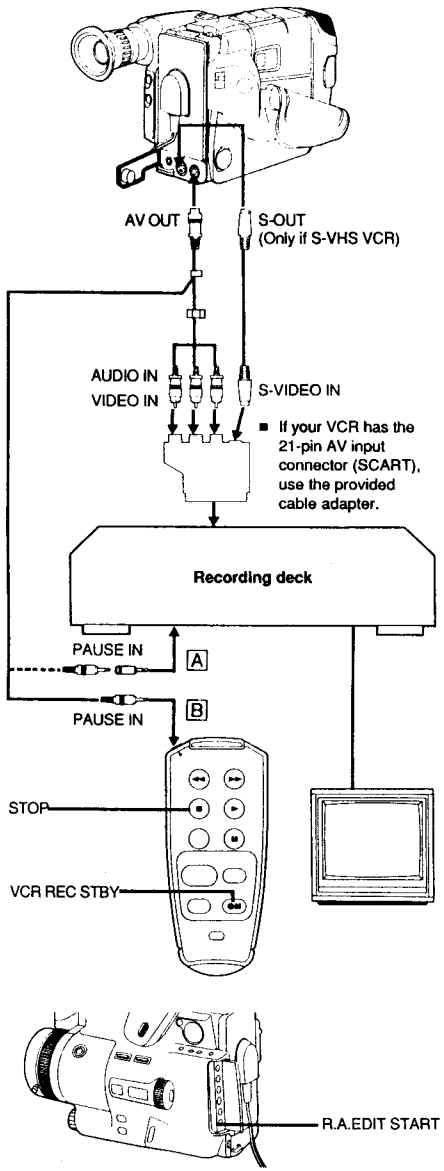
To select up to 8 scenes

1. Point the remote control toward the VideoMovie's infrared beam sensor window and press ON/OFF.
   - The RAE counter display will appear in the viewfinder and on the TV screen.
2. Press PLAY and look for the first scene you want. (Use FF and REW for faster search.)
3. When you find the beginning of a scene you want, press IN/OUT.
   - The in-point's counter reading is registered on the display.
4. When you find the end of the scene you want, press IN/OUT again.
   - The out-point's counter reading is registered on the display.
   - The "TOTAL" reading shows the total running time of the edited scenes.
5. Specify additional scenes by repeating steps 3 – 4.

Notes:

- For any scene, the out-point must have a counter reading that is at least 1 second after the in-point. An out-point with a counter reading less than or the same as the in-point will not be registered.
- Since the VideoMovie prerolls during Random Assemble Editing, there must be at least 15 seconds worth of recording material prior to any in-point on the playback tape.
- Blank portions of tape cannot be registered as in- or out-points.
- If the search time for an in-point exceeds 5 minutes, the recording deck's Record-Pause mode will be cancelled and editing will not take place.
- Pressing the ON/OFF button will clear all in- and out-points from memory.
- When editing, a slight discrepancy between the counter reading and actual in- and out-points may occur. Please position your in- and out-points with enough leeway so that segments will be recorded in their entirety (not cut off).

(Continued on next page.)



To make corrections

During steps 3 and 4 above, pressing CANCEL will erase the last in- or out-point. Pressing again will erase the point before that, and so on.

For automatic editing to a VCR

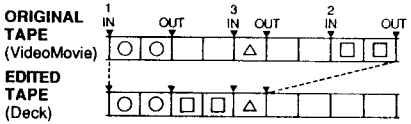
[A] If the recording deck has a Remote Pause terminal, connect the A/V output cable's PAUSE connector to it using the supplied pin adapter.

[B] If the recording deck does not have a Remote Pause terminal, connect the cable's PAUSE connector to the remote control's PAUSE IN jack.

1 Point the remote control toward the recording deck's infrared sensor window and press VCR REC STBY.
- Be sure that the VCR enters the Record-Pause mode. If not, use the controls on the VCR to enter the Record-Pause mode.

Note:
With some manufacturer's VCR's, pressing VCR REC STBY may not place the VCR into the Record-Pause mode.

2 Press the VideoMovie's RAE START button.
- The function begins automatic editing; all the scenes are copied to the recording deck in the specified order.
- Keep the remote control pointed toward the VCR's remote sensor window.
- The on-screen display remains superimposed while the VideoMovie searches for each scene (the blinking cursor points to the scene number presently being searched), and is not displayed while the scenes are being edited.
- When RAE is finished, the VideoMovie enters the Still mode and the recording deck enters the Record-Pause mode. Press STOP on both units to end Random Assemble Editing.



To dub the entire tape without any edits

To make a duplicate copy of the VideoMovie's tape, perform Random Assemble Editing by specifying only one in-point (and no out-point). RAE will automatically dub everything from that in-point to the end of the tape.

Note:
With some VCR models, there may be noise at the in- or out-points on the edited tape.

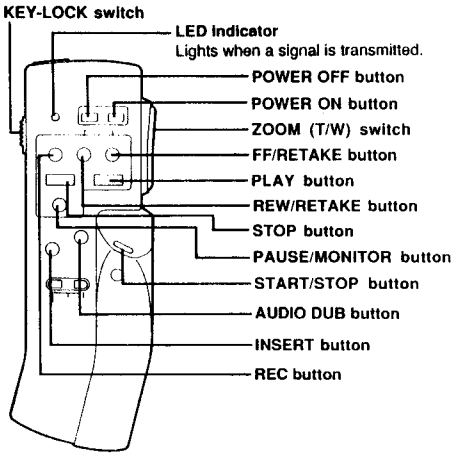
ENGLISH

USING THE OPTIONAL REMOTE CONTROL UNIT

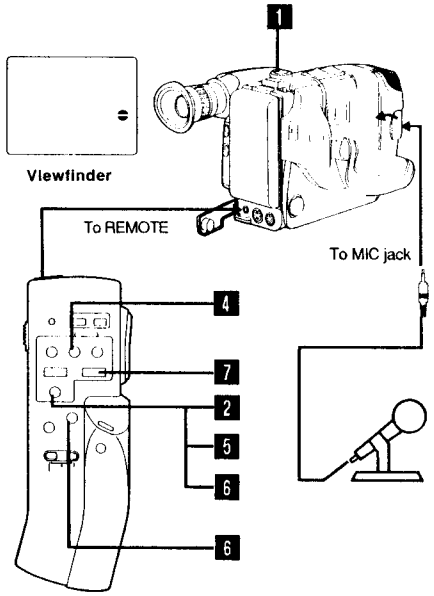
The RM-V20U offers control of the VideoMovie's functions and makes additional editing functions such as Insert Editing and Audio Dubbing possible. When using the RM-V20U, connect the remote cable of RM-V20U to the VideoMovie's REMOTE jack.

*Before use, refer to the instruction booklet.

- Make sure REMOTE is set to ON in the on-screen menu when you wish to use the remote control. (Pre-set to ON when shipped.)
- Functions of the remote control unit's control buttons vary depending on the VideoMovie's power switch position.
- The REC TIME, INTERVAL, and VISS buttons can not be used.



Buttons	Functions	
	With the VideoMovie's power switch set to "LOCK" or "RELEASE".	With the VideoMovie's power switch set to "PLAY".
POWER ON	Power on	
POWER OFF	Power off	
REC	—	—
START/ STOP	Functions same as the Recording Start/Stop button of the VideoMovie.	
REW/ RETAKE	Retake (Rewind)	Rew/Rew Shuttle Search
FF/ RETAKE	Retake (Forward)	FF/FF Shuttle Search
PLAY	—	Playback start
PAUSE/ MONITOR	—	Pause
STOP	—	Stop
INSERT	—	Insert Editing
AUDIO DUB	—	Audio Dubbing

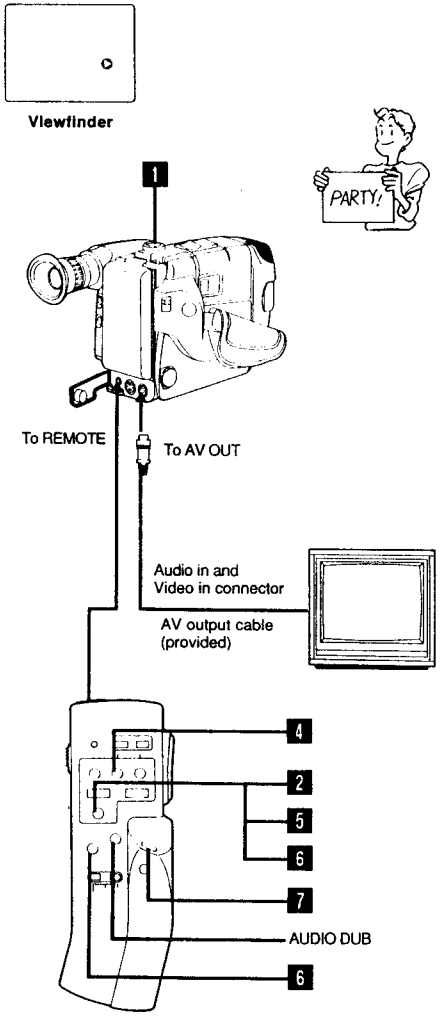


AUDIO DUBBING

Audio dubbing means recording a new soundtrack on a pre-recorded tape, i.e., replacing the original sound with new audio material. Audio dubbing is applicable only to the longitudinal audio track (normal audio). Audio dubbing on the Hi-Fi audio track cannot be performed.

Precautions
- Tapes with their safety tabs removed cannot be audio dubbed. Reseal the safety tab slot to perform the dubbing.
- If whistling or howling is heard during audio dubbing, reduce the TV volume or move the mike farther away from the TV.
- When dubbing from an external microphone, connect the microphone to the VideoMovie's MIC jack.

1 Set the power switch to "PLAY".
2 Locate the desired edit-out point on the tape and press PAUSE/MONITOR.
3 Set COUNTER RESET and COUNTER MEMORY to "ON" (☞ P. 11, 23).
4 Press REW to locate more quickly the place on the tape you want to begin.
5 Press PAUSE/MONITOR at the exact beginning point.
6 While pressing AUDIO DUB, press PAUSE/MONITOR to enter the Audio Dub Standby mode.
7 Press PLAY. — Audio dubbing begins.
- When the counter reading of "0:00:00" is reached, audio dubbing stops automatically and the VideoMovie enters the Playback mode.



INSERT EDITING

Insert editing means recording a new scene into a section of prerecorded tape so that a part of the original recording can be replaced with a new sequence without excessive picture distortion at the edit-in and edit-out points. In the Insert Editing mode, the original audio on the normal audio track remains unchanged.

1. Set the power switch to "PLAY".
2. Locate the desired edit-out point on the tape and press PAUSE/MONITOR.
3. Set COUNTER RESET and COUNTER MEMORY to "ON" (☞ P.11, 23)
4. Press REW to rewind the tape a little beyond the beginning of the scene you wish to insert.
5. Press PAUSE/MONITOR exactly at the beginning of the scene to insert.
6. While keeping INSERT pressed, press PAUSE/MONITOR.
   — The VideoMovie enters the Insert Editing mode with the scene at which the VideoMovie is aimed appearing on the screen for monitoring.
7. Press START/STOP to insert the new sequence.

■ When the counter reading of "0:00:00" is reached, insert editing stops automatically and the VideoMovie enters the Playback mode.

Notes:

- When in the Still mode, the counter indication may be blurred. This is normal.
- When the tape reaches the preset edit-out point during the editing operation, it may stop slightly before or after the designated point on the tape. Also, at that time, noise bars may appear momentarily. Neither of these is a defect of the unit.
- Only video and Hi-Fi audio signals are recorded in the Insert Editing mode. When the normal sound is to be recorded, press the AUDIO DUB and PAUSE buttons simultaneously in the Insert Pause mode. When INSERT and PAUSE buttons are pressed simultaneously again, the unit re-enters the Video-signal-only Recording mode.

ENGLISH

SPECIFICATIONS

Format	:	S-VHS/VHS PAL standard
Power source	:	DC 6 V ⎓
Power consumption	:	9.9 W
Signal system	:	PAL-type
Video recording system	:	Luminance: FM recording Color: Converted sub-carrier direct recording Conforms to S-VHS standard
Hi-fi audio recording system	:	Deep-layer recording system conforming to stereo Hi-Fi VHS standard
No. of audio channels	:	2 Hi-Fi audio channels 1 normal audio channel
Cassette	:	S-VHS C / VHS C cassette
Tape speed (SP)	:	23.39 mm/sec
(LP)	:	11.70 mm/sec
Recording time		
Max. (SP)	:	45 minutes (with SE-C45 cassette)
(LP)	:	90 minutes (with SE-C45 cassette)

VIDEO

Output	:	1 Vp-p, 75 ohms, unbalanced (via AV OUT connector)

AUDIO

Output	:	–6 dBs, 1 k-ohm (via AV OUT connector).
Microphone input	:	–68 dBs, high impedance, unbalanced with 1.6 Ø DC 5 V ⎓ DC out terminal

HI-FI AUDIO

Wow and flutter	:	Less than 0.005 % WRMS

CAMERA

Pick up	:	1/3"-format CCD
Minimum required illumination	:	1 lux (Slow shutter Mode)
Illumination range	:	1 to 100,000 lux
Lens	:	**8:1 zoom** , f = 6.4 to 52 mm, **11:1 zoom**, f = 6.8 to 71mm, **Ultra-Wide**, f = 4mm, F/1.8, with auto iris and auto macro, filter diameter 46 mm **Microscope Mode** F/15, distance = 92 ± 2mm
Viewfinder	:	Electronic viewfinder with 0.7" color LCD
White balance	:	Full-auto

GENERAL

Operating temperature	:	0°C to +40°C
Operating humidity	:	35% to 80%
Storage temperature	:	–20°C to +50°C
Weight	:	Approx. 920 g (without lens cap, hand strap, and connector covers)
Dimensions	:	127(W) x 122(H) x 214(D) mm (incl. viewfinder)

AA-V11EG SPECIFICATIONS

Power requirement	:	AC 110 to 240 V~, 50/60 Hz
Power consumption	:	23 W
Output	:	DC 8.5 V ⎓, 1.3 A (Charge), DC 6.3 V ⎓, 1.8 A (VideoMovie)
Charging system	:	Constant current, peak detection, timer controlled
Dimensions	:	150(W) x 42(H) x 68(D) mm
Weight	:	Approx. 350 g

PROVIDED ACCESSORIES

AC power adapter/battery charger AA-V11EG
Battery pack BN-V22U
A/V output cable
Cable adapter
S-VIDEO cable VC-V44U
S-VHS-C cassette SE-C30
Lithium battery CR2025
Microscope mode lens extender
Lens holder
Remote control unit

For optional accessories, ☞ **P. 34**

Note: Up to 11 x optical zoom magnification (measured from 8:1 wide, f=6.4 mm, to 10:1 telephoto, f=71 mm); up to 22 x digital zoom magnification.

Specifications shown are for SP mode unless otherwise specified.
E.&O.E.Design and specifications subject to change without notice.

ENGLISH